Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for analyzing nitropolycyclic aromatic hydrocarbons, comprising:

an auto-sampler to which a methanol water mixture and a sample comprising nitropolycyclic aromatic hydrocarbons are sent;

a <u>silica gel/C8</u> separation column downstream of the auto-sampler configured to receive the methanol water mixture and the sample from the auto-sampler and configured to separate the sample comprising nitropolycyclic aromatic hydrocarbons into at least four separate nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene;

a unit-temperature controlled tank for maintaining the silica gel/C8 separation column at a first predetermined temperature higher than room temperature;

a an alumina/Pt-Rh reduction column downstream of the silica gel/C8 separation column configured to receive the at least four separate nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene from the separation column and to aminate the separated nitropolycyclic aromatic hydrocarbons;

a unit-temperature controlled tank for maintaining the alumina/Pt-Rh reduction column at a second predetermined temperature higher than

roomthe first predetermined temperature; and

a fluorescence detector.

2. (Withdrawn and Currently Amended) An apparatus for analyzing nitropolycyclic aromatic hydrocarbons, comprising:

an auto-sampler to which a methanol water mixture and a sample comprising nitropolycyclic aromatic hydrocarbons are sent;

a <u>silica gel/C8</u> separation column downstream of the auto-sampler configured to receive the methanol water mixture and the sample from the auto-sampler and configured to separate the sample containing nitropolycyclic aromatic hydrocarbons into at least four separate nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene;

a unit-temperature controlled tank for maintaining the silica gel/C8 separation column at a first predetermined temperature higher than room temperature;

a<u>an alumina/Pt-Rh</u> reduction column downstream of the <u>silica gel/C8</u> separation column configured to receive the at least four separate nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene from the separation column and to aminate the separated nitropolycyclic aromatic hydrocarbons;

a unit-temperature controlled tank for maintaining the alumina/Pt-Rh reduction column at a second predetermined temperature higher than room the first predetermined temperature;

an analysis column configured to separate an interfering component contained in the sample from the aminated separated nitropolycyclic aromatic hydrocarbons; and

a fluorescence detector.

3-16. (Canceled)

- 17. (Previously Presented) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 1, further comprising ultrasonic generator provided upstream of the auto-sampler for applying ultrasonic waves to a mixture of diesel particulates and an organic solvent to dissolve soluble organic fractions of the diesel particulates in the organic solvent.
- 18. (Withdrawn) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 2, further comprising ultrasonic generator provided upstream of the auto-sampler for applying ultrasonic waves to a mixture of diesel particulates and an organic solvent to dissolve soluble organic fractions of the diesel particulates in the organic solvent.
- 19. (New) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 1, wherein the silica gel/C8 separation column is directly connected to a downstream end of the auto-sampler, and the alumina/Pt-Rh reduction column is directly connected to a downstream end of the silica gel/C8 separation column.

- 20. (New) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 19, wherein the a first predetermined temperature is approximately 40°C.
- 21. (New and Withdrawn) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 2, wherein the silica gel/C8 separation column is directly connected to a downstream end of the autosampler, and the alumina/Pt-Rh reduction column is directly connected to a downstream end of the silica gel/C8 separation column.
- 22. (New and Withdrawn) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 21, wherein the a first predetermined temperature is approximately 40°C.